# Road Saw

# **Operation and Maintenance Manual**





161000-HP, 161005-HP



888-376-7027 | BlueDiamondAttachments.com

Register your
WARRANTY
within 30 days
of purchase



#### Introduction: Owner Information

Thank you for your decision to purchase a Blue Diamond® Road Saw. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and /or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Blue Diamond® is continually working to improve its products. Blue Diamond® reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Blue Diamond® makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Blue Diamond® assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Blue Diamond Attachments Dealer for assistance, information, or additional copies of the manual. Contact www.bluediamondattachments.com or call 888-376-7027 for a complete list of dealers in your area.

#### **Serial Number Location:**

Please record attachment information in the space provided for future reference.

Model Number:	
Serial Number:	
Dealer Name:	
Dealer Number:	
Date of Purchase:	

Always use your serial number when requesting information or when ordering parts.

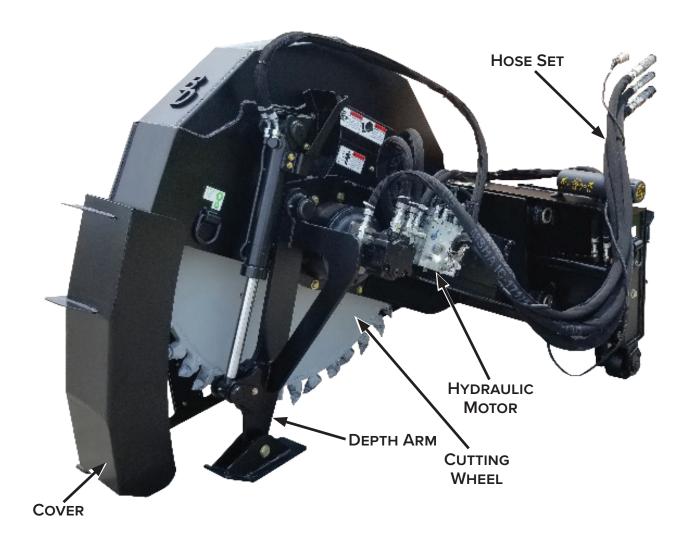
**NOTE:** The directions left, right, front and rear, as mentioned throughout this manual, are as viewed from the operator's position.

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### 1. Introduction

### 1.1 Attachment Identification



### 1. Introduction

### 1.2 About this Attachment

Thank you for purchasing the Blue Diamond® Road Saw. This attachment is easy to operate, safe, durable, and efficient. The Road Saw is equipped with high performance, heavy duty components that are manufactured to withstand cutting concrete, asphalt, and other solid surfaces.

# 1.3 Attachment Model Numbers

MODEL NUMBER	CUTTING DEPTH
161000-HP	10"
161005-HP	18"

Model Number	CUTTING WHEEL PART NUMBER	CUTTING WHEEL WIDTH
161000-HP	161505	2.5"
	161510	4.5"
	161530	3.0"
161005-HP	161533	4.5"
	161535	6.0"

<sup>\*</sup>Cutting wheels are sold separately.

### 2.1 General Safety Information



### SAFETY ALERT SYMBOL



This **SAFETY ALERT SYMBOL** identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



### IMPORTANT A



The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.



#### **DANGER**



The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



#### WARNING



The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



#### CAUTION



The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Notes are used to indicate important information. This information may be repeated in other areas of the manual.

#### **Operating Safety**

- Read and follow instructions in this manual and the machine's Operators Manual before operating.
- The manual must always remain with the machine. In case of loss or damage, request a new copy from your dealer or from Blue Diamond®.
- Strictly follow all rules prescribed by the safety pictograms/decals applied to the machine. Ensure that all safety pictograms/decals are legible. If pictograms/decals are worn, they must be replaced with new ones obtained from Blue Diamond® and placed in the position indicated by this manual.
- Before using the machine, make sure that all safety devices are installed and in good working condition. In case of damaged or missing shields, replace them immediately.
- It is absolutely forbidden to remove or alter safety devices and/or safety precautions
- Pay maximum attention to avoid any accidental contact with rotating parts of the machine.
- If the use of the machine is required at night or in conditions of reduced visibility, use the lighting system of the prime mover and an auxiliary lighting system if required.

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### 2.2 Operators

#### **Qualified Operators**

The operator is a person suited to the work and who is physically and psychologically able to withstand the demands connected with operating the equipment for its intended use. The operator must not allow anyone to approach the machine while it is working and must not allow external personnel to operate the machine or attachment.

The operator is to follow the given instructions in this manual and the machine operator's manual in order to obtain maximum performance, minimal fuel consumption, and maximum safety for himself and for others.

The operator is responsible for scrupulously observing all the instructions given in this manual.



#### **DANGER**



#### **AVOID SERIOUS INJURY OR DEATH**

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment. For an operator to be qualified, he or she must have read and understood the instructions of this manual, he or she must make adequate preparation for the proper use of the machine, and he or she must hold a driving license.

In case of doubt regarding the use of the machine and/or the interpretation of this manual, the operator must contact either their dealer or Blue Diamond®.

#### **Operator Training**

- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem.
   Regulations may identify a hazard such as a utility line.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

#### **Operator Safety**

- Before starting, and during operation of the attachment, make sure there are no people or animals in the operation area; the machine can project material from the back with risks of serious injury or death.
- During operation, adjustment, maintenance, repairing, or transportation of the machine, the operator must always use appropriate Personal Protective Equipment (PPE) including but not limited to safety glasses, working gloves, dustmask, safety helmet, and hearing protection.
- DO NOT operate the attachment or machine while wearing loose fitting clothing that can be entangled or caught in parts of the machine.
- DO NOT operate the implement when tired, not in good condition, or under the influence of alcohol or drugs.

### 2.3 Safety Guidelines

#### **Operating Safety**

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to persons unfamiliar with its operation.
- Check for overhead and / or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.
- Check that the attachment is securely fastened to the machine.
- Make sure all the machine controls are in the NEUTRAL before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator's Manual.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders.
- DO NOT permit personnel to be in the work area when operating the equipment.
- The equipment must be used ONLY on approved machines.
- DO NOT modify the equipment in any way.
   Unauthorized modification may impair the function and / or safety and could affect the life of the equipment.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.

- DO NOT operate equipment in poor visibility conditions such as fog, darkness or any conditions that limit clear visibility less than 300 feet (100 m) in front of and to the sides of the equipment.
- When conditions make it necessary to slow ground speed, shift to a lower gear rather than reducing engine speed. The engine will maintain rated speed and keep the road saw running at optimal milling speed.
- DO NOT operate in a work area that has not been inspected for foreign debris and obstacles.
- Remove any foreign objects and clearly mark any objects that cannot be removed.
- DO NOT crawl under raised loader arms.
- Wear safety glasses, gloves, hearing protection, and other protective clothing when required.
- Know the weight limitations of operating surfaces and clearances.
- Always lower the loaded arms before leaving the operator's position.
- Be sure to raise the attachment completely off the ground BEFORE side shifting.

#### **Machine Requirements and Capabilities**

- The machine's operator's cab should be equipped with a thermoplastic polycarbonate or similar material front window, and similar protection on the sides of the operator's cab before operating the equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- DO NOT exceed 5000 psi (345 bar) operating pressure.
- Use caution on slopes and near banks and ditches to prevent overturn.

#### **Fire Prevention Safety**

- Flamable debris (leaves, grass, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation.
- The equipment's hydraulic motor compartment must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.
- All fuels, most lubricants, and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

#### **Transporting Safety**

- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- Check local laws for all highway lighting and marking requirements.
- Always yield to oncoming traffic, and move to the side of the road so any following traffic may pass.
- Never allow riders on either machine or equipment.
- If transporting the equipment on a truck or trailer, make sure the equipment is properly secured to the transport vehicle.
- When loading, keep the attachment as low to ramps and the trailer as possible.

#### **Hydraulic System**

- Check hydraulic tubes, hoses, and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.
- Always clean fluid spills. DO NOT use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

#### **Personal Protective Equipment**



Proper Workclothes: To help ensure your safety as a designated operator wear proper workclothes including tight fitting clothes, protective gloves and shoes.



Hand Protection: To help ensure your safety as a designated operator wear protective gloves.



Protective Shoes: To help ensure your safety as a designated operator wear protective shoes.



Safety Helmet: To help ensure your safety as a designated operator wear a safety helmet.



Safety Helmet and Eye/Ear Protection: To help ensure your safety as a designated operator wear a safety helmet and eye/ear protection.

### 3.1 Setup



#### WARNING



#### **AVOID SERIOUS INJURY OR DEATH**

Read this entire manual and decals on the attachment before attempting any maintenance, service, or setup of the unit.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Although the Blue Diamond® Road Saw is fully assembled, some simple checks should be performed before operation.

#### **Safety Decals**

The safety decals existing on the attachment should be clearly readable and always followed.

#### Lubrication

All attachment joint grease fittings should be greased until grease flows out of the joint.

#### **Hydraulic Couplers**

The Road Saw may have been shipped without the 3 or 5 required hydraulic quick couplers. Obtain the correct brand and size, and install them on the hoses.

On a 3-line (single circuit) road saw, the pressure "in" port on the diverter valve is marked LP for motor pressure. Return flow to the loader is marked LR for motor return. The small hose is for the drive motor case drain and is plumbed directly to the skid steer case drain coupler.

#### **Hoses / Fittings**

Hydraulic fittings are used to connect all attachment hoses. All fittings should be tight and free of hydraulic leaks. Hoses must be free of crimps or cuts that might result in leakage. Check the attachment before operation to make sure all hose routings are kink-free and allow for maximum movement of all extend, lift / lower, and / or swing motion required during normal operation.

#### Wire Harness

The wiring harness for the electro hydraulic valve block (if equipped) should be routed to prevent catching or pinching when side shifting, tilting, or lower the drum fully into the cut.

#### Wheel Assembly

For proper operation, picks must be installed in every holder of the drum.

#### **Motor Case Drain**



# IMPORTANT A



Unobstructed case drain flow is critical to proper road saw motor operation. Blocked case drain flow WILL damage the road saw's motor.

The Blue Diamond® Road Saw has a planetary gearbox mounted within the wheel, which is driven through a hydraulic piston motor.

During motor operation, some oil bypasses the motor and must be allowed an unobstructed path back to the hydraulic tank. If this flow is restricted, then pressure will build up inside the motor and will fail the motor's shaft seal, the end cap gasket, or both.

### 3. Operation

### 3.1 Setup Cont'd

#### **Motor Case Drain Cont'd**

Several causes can lead to this failure:

- Pinched or crushed case drain hose can restrict flow.
- 2. Disconnected case drain quick coupler can restrict flow.
- 3. Wheel teeth come in contact with the pavement or trailer ramps while the skid steer is in motion, forcing the wheel to rotate with the high flow hydraulic circuit "off". This wheel rotation forces the motor to turn, which pressurizes the motor's case, because the pressure and the return oil's path has been blocked.

If the above issues are not addressed, severe motor damage may result. All of these issues can be attributed to the operator and are preventable with proper operation. Different manufacturers of skid steers use different sizes of case drain couplers and locate the coupler on the skid steer in different locations. NEVER switch the road saw between skid steer manufacturers without ensuring the case drain line is hooked up to the correct coupler.

Unless a defect in the motor is found, these shaft seal and end cap gasket failures are not covered by warranty.

### 3.2 Operation



#### **DANGER**



Prior to operating the attachment, read and fully understand this entire manual. Follow all safety guidelines as stated in section 2.0 as well as safety decals on the attachment. Make sure all guards, shields, and decals are in place and in good condition prior to operation.

The road saw is a hydraulic–powered attachment intended for cutting asphalt or concrete surfaces. The performance of the unit can vary greatly depending upon how it is used and operated. Therefore, the recommended operating procedures contained within this manual should be followed at all times for maximum productivity.

The attachment requires a minimum hydraulic supply of 24 gallons per minute (GPM) at 2,000 psi.



# IMPORTANT A



Insufficient hydraulic power will result in poor performance. Check auxiliary high flow per factory specifications.

#### Attachment Installation

- To attach the road saw to the skid steer, start the skid steer's engine and rotate the coupler
- 2. Pull both levers up to the vertical position.
- 3. Move the machine foward, and pick up the attachment.
- 4. Rotate the attachment back, and push both coupler levers completely down. Make sure the two (2) wedges are completely down and engaged. Be sure the pins and latch hands are secure before operating the boom and attachment.
- Connect all hydraulic hoses to the skid steer quick couplers. Three hoses must be connected: motor pressure, motor return, and motor case drain.
- 6. Connect the wire harness to the skid steer.

# IMPORTANT A



All hoses should be free of kinks, cuts, or abrasions for safe operation. DO NOT operate if any hoses are damaged.

### 3.2 Operation Cont'd

#### **Basic Operation**



See the specifications in this manual for minimum and maximum pressure and flow requirements on page 36. Maximum pressures vary depending on the road saw valve configuration. Valve configuration varies depending on the skid steer manufacturer.

- 1. Enter skid steer, and fasten seatbelt.
- 2. Make sure that the area is clear of bystanders and other workers.
- 3. Start the skid steer, and engage the high flow hydraulic circuit at idle.
- Adjust the road saw's depth, and side shift as needed using the electro-hydraulic controls.
   On a 3-line road saw, the high flow circuit must be engaged to operate these adjustments.
- 5. Fully lower the loader arms, and then roll out with bucket function until the road saw is level with the pavement.
- 6. Move the throttle to full rpm position, and keep it there during the milling operations. Begin the operation by setting the depth cylinders to zero (0) depth. Lower the wheel to cut to the desired depth. Move forward at a speed that will allow the wheel to cut efficiently without stalling.

### 3.3 Maximizing Production

Production can greatly vary depending on the milling depth, type of aggregate in the mix, ambient temperature, and condition of the cutting teeth.

Teeth should be inspected every 30 minutes, and worn teeth replaced. Teeth should freely rotate in their holders. See the Maintenance section on pages 15 and 16 for more information.

Optional teeth for milling concrete and water spray kits are available. Water spray kits increase production by suppressing dust and helping the teeth rotate properly. Contact Blue Diamond® Product Support for more information.

Only cut straight lines. DO NOT turn while milling. Cutting curves will quickly wear the edge picks, decreasing production. Milling a radius or curve can also damage the wheel.

### 3. Operation

### 3.4 Electrical Parts

**NOTE:** Road saws DO NOT have a tilt function. Tilt cylinder wiring is not used, and these connections are left unplugged.

#### 3-Line Wiring Harness Information

The following harnesses connect directly to the four (4) solenoids. Note that each harness has six (6) connectors, but only four (4) are used on the Blue Diamond® Road Saw.

SKID STEER MODEL	HARNESS PART NUMBER
Bobcat A, S, & T (3–Line)	160400 + 160416
Caterpillar D Series & Later (3–Line)	160425
John Deere A, B, & C Series (3–Line)	160430
John Deere D Series & Later (3–Line)	160435
CASE 400 Series & Later (3–Line)	
Gehl (3-Line)	
JCB (3–Line)	160400
Kubota	
New Holland (3–Line)	
Volvo (3–Line)	

HARNESS PART NUMBER	LOADER SIDE CONNECTOR	LOADER SIDE SOCKET	LOADER SIDE TOOL	VALVE SIDE CONNECTOR	VALVE SIDE SOCKET	VALVE SIDE WEDGE	DIODE BOARD #												
160400																			
160430	200404										200407	20004		200405	000407	202400	260400	200400	200250
160435	260404	260407	260391	260405	260407	260409	260356												
160425																			

### 3.5 Mandatory Safety

#### Shutdown Procedure



#### **AVOID SERIOUS INJURY OR DEATH**

Failure to follow the procedures before cleaning, adjusting, lubricating, or servicing this unit could lead to serious injury or death.

Before cleaning, adjusting, lubricating, or servicing this unit, ALWAYS follow the Mandatory Safety Shutdown Procedure:

- Move the skid steer loader propulsion control lever to the "neutral" position.
- 2. Shut off the attachment by shutting off the auxiliary and high flow hydraulic output.
- 3. Lower the loader lift arms, completely roll the attachment forward so it is securely resting on a firm, level surface.
- 4. Engage the loader's parking brake.
- 5. Move the skid steer's throttle to slow the idle position, shut off the engine, and remove the key from the ignition.
- The operator must keep the key with them at all times when working on the unit so no one can start the engine while maintenance is being performed.



### **WARNING**



#### **AVOID SERIOUS INJURY OR DEATH**

Before performing any maintenance on the attachment, perform the Mandatory Safety Shutdown Procedure on page 14.

Proper maintenance of the attachment will result in longer life and more productive and cost effective operation. There are two basic categories of maintenance: cutting wheel maintenance and component lubrication.

# **4.1 Cutting Wheel Maintenance**



Cutting wheel maintenance is critical to extending the life of the pick and holder as well as overall production of the road saw.

# INSPECT THE CUTTING WHEEL EVERY 30 MINUTES OF OPERATION

The factory installed carbide pick is a general purpose pick and is designed for milling both asphalt and concrete. Picks designed for extended periods of concrete cutting are available from Blue Diamond®. Contact our Product Support team for more information.

Pick life varies from depth, density, material, aggregate, and maintenance, which includes

allowing the tooth to rotate. To maximize pick life, the picks must be free to rotate in the holder. The pick as two (2) functions: serves as the consumable cutting tools and protects the holder. The tooth must be free to rotate in the holder. If it locks up, the wear on the tooth and holder is greatly accelerated.

Edge teeth wear faster than center teeth due to side loading of the wheel during the loader's steering corrections.

To promote pick rotation, spray the picks daily with a water–based asphalt emulsifier to break down asphalt emulsion.

If the pick remains in the holder beyond its intended replacement point, it reduces the cutting performance and will not protect the holder. If the picks are worn enough to indicate slight holder wear, replace the picks. See Figures 1 and 2 for examples of excessively worn teeth.

Blue Diamond® recommends using a water spray kit. Using water may increase tooth life by 20% to 40%. It also suppresses milling dust.



Figure 1

#### **EXAMPLES OF REMAINING TOOTH LIFE**



Figure 2

## 4.1 Cutting Wheel

#### Maintenance Cont'd



### CAUTION



NEVER strike the pick on the carbide tip. The carbide can break or chip and cause injury.



#### CAUTION



ALWAYS wear eye protection when performing when removing and installing teeth. Hardened tools and carbide picks can shatter and cause injury.

#### Removing Teeth

A fork-type pick tool is included with the road saw and should be used to remove the picks from the holders.

Insert the fork into the groove on the tool and strike the tool with a hammer.

In the event the pick tool is not available, a punch may be inserted into the bottom of the holders to dislodge the pick.

#### **Installing Teeth**

For installation, the fork-type tool should be inserted into the groove on the tooth and struck with a hammer. Also if the tool is not available, a length of pipe with a 3/4" — 1" inside diameter can be placed over the pick to protect the carbide from a direct hit. Striking a small piece of wood placed on the pick to absorb the shock will also prevent damage.

#### Pick Holder Repair



# IMPORTANT A



To avoid bearing damage, ALWAYS ground directly to the wheel before welding.

If a pick holder becomes worn, note the position and angle of the holder. Cut the holder from the wheel using a torch or air-arc. Weld the new holder to the wheel in the noted position.

Blue Diamond®'s warranty does NOT cover ANY ground engaging parts (wheel, teeth, holders, or bases) against wear unless the wear is determined by Blue Diamond® to have been caused by a manufacturing defect.

### 4.2 Road Saw Lubrication



#### WARNING



#### **AVOID SERIOUS INJURY OR DEATH**

Failure to follow the Mandatory Safety Shutdown Procedure on page 14 before cleaning, adjusting, lubricating, or servicing this unit could lead to serious injury or death.

There are three (3) types of lubrication required on the Blue Diamond® Road Saw; spray lubrication, greased components, and planetary gearbox.

#### **Spray Lubrication**

Spray side shift bars with graphite lube spray (such as CRC 03094) once a week.

DO NOT apply grease to the side shift bars. Grease catches milling dust and causes the side shift mechanism to bind and wear quickly.

# 4.2 Road Saw Lubrication Cont'd

#### **Grease Lubrication**

All grease components should be greased with an EP Lithium NLGL No. 2 grade grease, such as Mobilux EP2.

The depth arm has a grease zerk on each end. These zerks should be greased weekly or every 40 hours of operation.

#### **Planetary Gearbox**

The planetary gearbox oil should be drained and refilled at 100 hours of operation and every 250 hours after the initial change.

The planetary gearbox contains synthetic EP90 gear oil and should be half full during operation. The planetary gear oil should be drained and replaced each year.

Oil Drain and Fill Procedure:

- 1. Clean area around three (3) plugs on the gearbox face near the motor.
- 2. Orient the attachment so the small plug is horizontal with the gearbox center line.
- 3. Remove the large gearbox plug on the gearbox face under the motor. Drain oil.
- 4. Replace the bottom plug, and tighten.
- 5. Remove the large plug above the motor and the small plug on the side of the motor.
- 6. Slowly fill the gearbox through the top large plug until the oil reaches the spindle drain hole.
- 7. The gearbox should be half full of AGMA EO90 synthetic gear lubricant or SAE 75W90 synthetic gear lubricant, such as Chevron RPM Synthetic 75W90.
- 8. When half full, the lube will come out of the small hole.
- 9. Replace two (2) plugs and tighten.

#### 4.3 Wheel & Gearbox Removal



#### **WARNING**



#### **AVOID SERIOUS INJURY OR DEATH**

Exercise extreme caution while removing the wheel and gearbox to prevent tipping the unit.



#### **CAUTION**



Components are extremely heavy and can cause serious injury if proper lifting techniques are not used.

- Perform Mandatory Shutdown Procedure on page 14. Leave the Blue Diamond<sup>®</sup> Road Saw attached to the skid steer.
- Disconnect the pressure, drain, and case drain hose from the hydraulic motor. Remove two (2) motor bolts, and lift the motor away from the chassis.
- 3. Remove four (4) bolts and the cover from the top of the chassis to expose the access hole.
- Using the access hole in the top of the chassis, support the wheel with a hoist. Remove a pick, and use the hole of the holder to lift.
- 5. Remove the four (4) bolts holding the planetary support plate to the chassis. Remove five (5) bolts that connect the gearbox to the chassis.
- 6. Start the skid steer and raise the chassis off of the wheel. Be careful not to catch the hoist chain.
- Once clear of the chassis, lower the wheel with the hoist. Place the wheel on blocks with access to the gearbox spindle bolts. Place the wheel with the gearbox facing upwards.
- 8. To remove the wheel from the gearbox, remove the eight (8) bolts connecting the wheel to the gearbox. Lift the gearbox from the wheel.

#### 4. Maintenance

#### 4.3 Wheel & Gearbox Removal

#### Cont'd



#### **WARNING**



#### **AVOID SERIOUS INJURY OR DEATH**

If the wheel does not lower, check the alignment of the gearbox and wheel in regards to the chassis. DO NOT attempt to dislodge the wheel while the road saw's frame is in the raised position. NEVER place hands or any body part in, around, or under the wheel. It may fall and cause serious injury or death.

### 4.4 Wheel Bolt Torqueing

The eight (8) bolts connecting the wheel to the gearbox spindle are to be torqued to 220 - 250 lb. / ft after 5 hours of operation and then every 40 hours after the initial tightening.



#### **CAUTION**



Components are extremely heavy and can cause serious injury if proper lifting techniques are not used.

- Perform the Mandatory Shutdown Procedure on page 14 with the saw at zero (0) depth and with the road saw lifted slightly off the ground.
- Remove the two (2) side guard retaining bolts, the retainers and spacers, and one (1) side front guard retaining ring.
- Raise the saw and tilt back until the front guard is clear of the chassis. Remove the front guard.
- 4. Perform the Mandatory Shutdown Procedure with the attachment at zero (0) depth.
- 5. Access the wheel to spindle bolts from the front of the chassis.
- 6. Torque to 220 250 lb. / ft.
- Reinstall the front cover.

### 4. Maintenance

### 4.6 Service Schedule

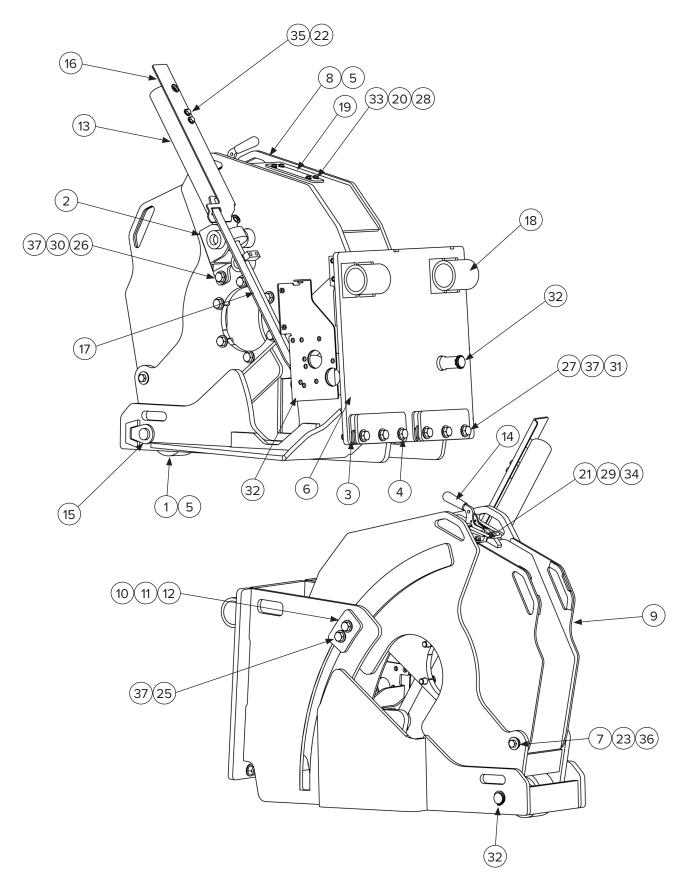
DESCRIPTION	SERVICE PROCEDURES						
DESCRIPTION	Check	Clean	Lube	Change	Adjust	Drain	
Daily Maintenance (or every 8 hours)							
Cutting Wheel (every 30 minutes)	•						
Hydraulic Fittings	•						
Hydraulic Hoses	•						
Weekly Maintenance (or every 40 ho	urs)						
Zerks	•		•				
All Hardware	•						
Side Shift Bars	•		•				
Bolts Connecting Wheel to Gearbox*	•				•		
250 Hour Maintenance							
Planetary Gearbox**	•			•			

<sup>\*</sup>Initial check should be after five (5) hours.

<sup>\*\*</sup>Initial change is after 100 hours of use.

<sup>\*\*</sup>Change yearly if 250 hours is not achieved.

### 5.1 10" Chassis Breakdown

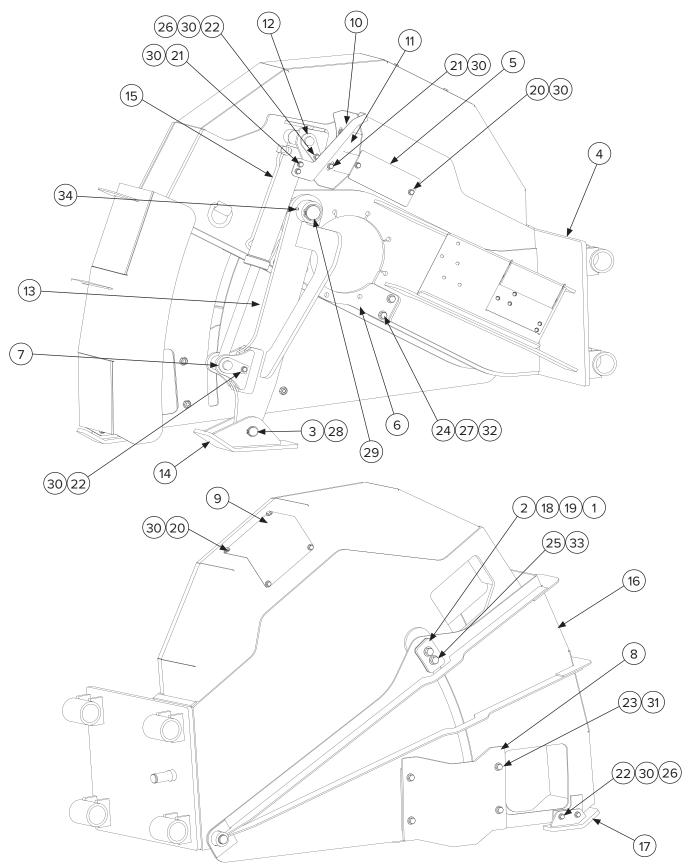


### 5. Parts

### 5.1 10" Chassis Breakdown Cont'd

ITEM	DESCRIPTION	QTY
1	Wheel Weldment	1
2	Cylinder Mount Weldment	1
3	Plate, Side Shift Spacer	6
4	Plate, Side Shift Retainer	2
5	Bearing, DU 1.25 Pin x 1.25 Width	4
6	Plate, Side Shift Spacer (Plastic)	2
7	Bushing, Shroud Bolt	2
8	Chassis Weldment	1
9	Chassis Shroud Weldment	1
10	Plate, Chassis Retainer	1
11	Plate, Spacer	1
12	Weldment, Chassis Pin	1
13	Weldment – Depth Cylinder	1
14	Latch Assembly, Draw	1
15	Weldment, Chassis Pin	1
16	Plate, Depth Indicator	1
17	Plate, Depth Indicator	1
18	Depth Skid Weldment	1
19	Plate, Water Spray Bar Cover	1
20	Bolt, 1/4 – 20 x 1.00 Plated	4
21	Bolt, 5/16 – 18 x 1.00 Plated	4
22	Bolt, 3/8 – 16 x 0.75 Plated	4
23	Bolt, 1/2 – 13 x 1.75 Plated	2
24	Bolt, 5/8 – 11 x 1.50 Plated	6
25	Bolt, 5/8 – 11 x 1.75 Plated	2
26	Bolt, 5/8 – 11 x 2.25 Plated	3
27	Bolt, 5/8 – 11 x 3.00 Plated	6
28	Nut, 1/4 – 20 Plated Nylock	4
29	Nut, 5/16 – 18 Plated	4
30	Nut, 5/8 – 11 Plated	3
31	Nut, 5/8 – 11 Plated Nylock	6
32	Retaining Ring, External 1.25" Diameter	3
33	Washer, 1/4 Narrow Plated	8
34	Washer, 5/16 Narrow Plated	8
35	Washer, 3/8 Narrow Plated	4
36	Washer 1/2 Wide Plated	2
37	Washer, 5/8 Narrow Plated	26

### 5.2 18" Chassis Breakdown

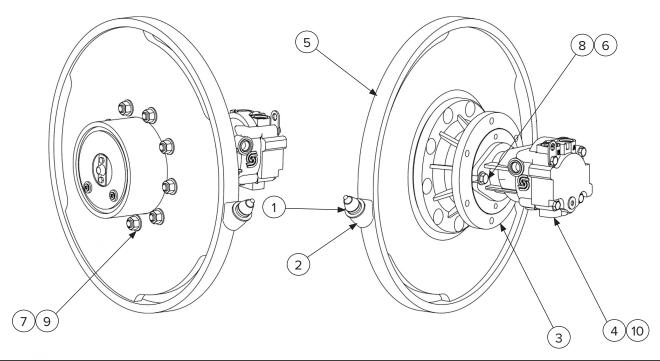


### 5. Parts

### 5.2 18" Chassis Breakdown Cont'd

ITEM	DESCRIPTION	QTY
1	Plate, Spacer	1
2	Plate, Chassis Retainer	1
3	Pin, Depth Cylinder	1
4	Weldment, Chassis	1
5	Plate, Chassis Cover	1
6	Plate, Planetary Support	1
7	Weldment, Depth Cylinder Pin	1
8	Plate, Debris Deflector	1
9	Plate, Chassis Cover	1
10	Plate, Depth Gage	1
11	Plate, Depth Gage	1
12	Weldment, Depth Cylinder Pin	1
13	Weldment, Depth Arm	1
14	Weldment, Depth Arm Skid	1
15	Weldment, Depth Cylinder	1
16	Weldment, Side Cover	1
17	Weldment, Side Cover Steel	1
18	Plate, Chassis Spacer	3
19	Plate, Chassis Spacer (Plastic)	2
20	Bolt, 3/8 – 16 x 0.50 Plated	6
21	Bolt, 3/8 – 16 x 0.75 Plated	4
22	Bolt, 3/8 – 16 x 1.25 Plated	4
23	Bolt, 1/2 – 13 x 1.00 Plated	4
24	Bolt, 9/16 – 12 x 2.50 Plated	4
25	Bolt, 5/8 – 11 x 1.75 Plated	2
26	Nut, 3/8 – 16 Plated	3
27	Nut, 9/16 – 12 Plated	4
28	Retaining Ring, External 1.25" Diameter	2
29	Retaining Ring, External 2.00" Diameter	1
30	Washer, 3/8 Narrow Plated	17
31	Washer, 1/2 Narrow Plated	4
32	Washer, 9/16 Narrow Plated	8
33	Washer, 5/8 Narrow Plated	2
34	Zerk, 1/4 – 28 Straight	2

### 5.3 10" Drivetrain Breakdown



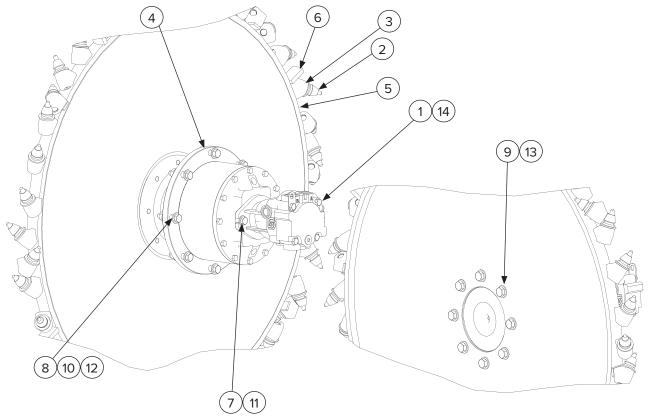
ITEM	DESCRIPTION	QTY
1	Pick, Asphalt	
'	Pick, Concrete	See Note A
2	Holder, Pick	
3	Gearbox, Planetary (See Note B and C)	1
4	Motor, Hydraulic Piston	1
5	Assembly, 2.5" Drum with Picks and Studs	1
6	Bolt, 1/2 – 20 x 1.25 Plated	2
7	Nut, 5/8 – 11 Plated	9
8	Washer, 1/2 Narrow Plated	2
9	Washer, 5/8 Narrow Plated	9
10	Seal, O-Ring 2-045	1

NOTE A: 2.5" Wide Wheel Qty: 26 4.5" Wide Wheel Qty: 34 **NOTE C:** For repair instructions, contact Blue Diamond® Product Support.

**NOTE B:** For units equipped with 260110 gearbox, the bolt length (pages 22 and 23, item 17) is critical. Bolts CANNOT be londer than specified or gearbox seal will be damaged.

### 5. Parts

### 5.4 18" Drivetrain Breakdown



ITEM	DESCRIPTION	QTY
1	Motor, Hydraulic Piston	1
	Pick, Asphalt Rock Fin	
2	Pick, Concrete Rock Fin	See Note A
3	Holder, Pick	
4	Planetary Gearbox (See Note B)	1
5	Weldment, Wheel – 3.0 with Picks and Holders	1
6	Plate, Debris Paddle	4
7	Bolt, 1/2 – 20 x 1.00 Plated	2
8	Bolt, 9/16 – 12 x 2.50 Plated	8
9	Bolt, 5/8 – 11 x 1.50 Okated	8
10	Nut, 9/16 – 12 Plated	8
11	Washer, 1/2 Narrow Plated	2
12	Washer, 9/16 Narrow Plated	16
13	Washer, 5/8 Narrow Plated	8
14	Seal, O-Ring 2-242	1

NOTE A: 3.0" Wide Wheel Qty: 30

4.5" Wide Wheel Qty: 48

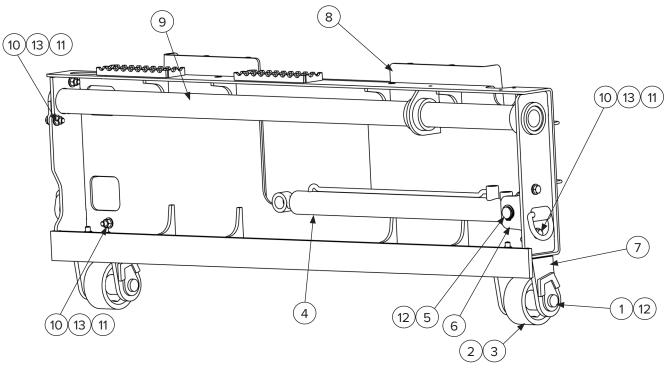
6.0" Wide Wheel Qty: 60

**NOTE B:** For repair instructions, contact Blue

Diamond® Product Support.

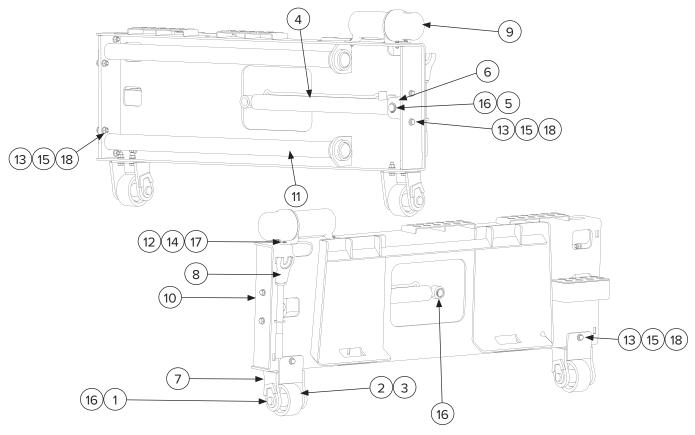
### 5. Parts

### 5.5 10" Attach Breakdown



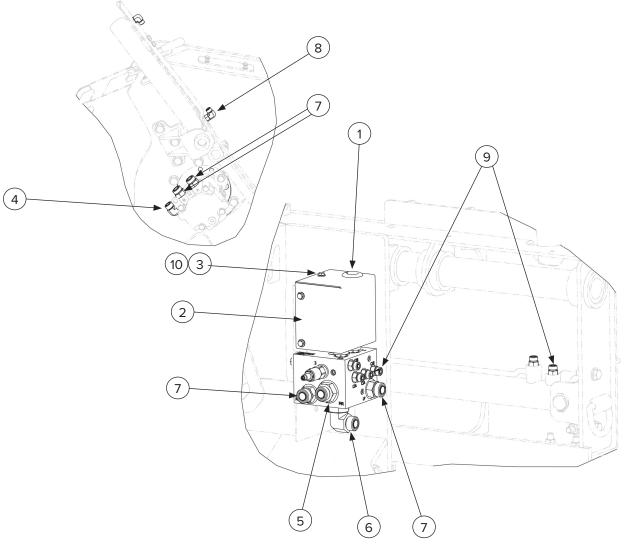
ITEM	DESCRIPTION	QTY
1	Weldment, Chassis Pin	2
2	Wheel Weldment	2
3	Bearing, DU 1.25 Pin x 1.25 Width	4
4	Cylinder Side Shift	1
5	Pin, Side Shift / LF Jack	1
6	Plate, Cylinder Bracket	1
7	Weldment, Wheel Bracket	2
8	Weldment, Attach	1
9	Weldment, Side Shift Rod	1
10	Bolt, 1/2 – 13 x 1.75 Plated	10
11	Nut, 1/2 – 13 Plate	10
12	Retaining Ring, External 1.25" Diameter	4
13	Washer, 1/2 Narrow Plated	20
NS	Pick Tool, Fork Style	1

### 5.6 18" Attach Breakdown



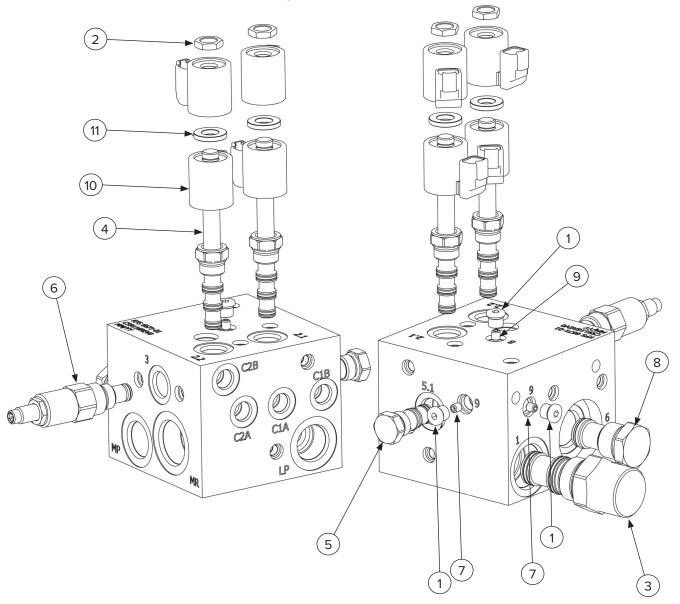
ITEM	DESCRIPTION	QTY
1	Weldment, Chassis Pin	2
2	Wheel Weldment	2
3	Bearing, DU 1.25 Pin x 1.25 Width	4
4	Cylinder, Side Shift	1
5	Pin, Side Shift / LF Jack	1
6	Plate, Cylinder Bracket	1
7	Weldment, Wheel Bracket	2
8	Pick Tool, Fork Style	1
9	Tube, Manual Storage	1
10	Weldment, Attach	1
11	Weldment, Side Shift Rod	2
12	Bolt, 1/4 – 20 x 1.00 Plated	3
13	Bolt, 1/2 – 13 x 1.75 Plated	12
14	Nut, 1/4 – 20 Plated	3
15	Nut, 1/2 – 13 Plated	12
16	Retaining Ring, External 1.25" Diameter	5
17	Washer, 1/4 Narrow Plated	6
18	Washer, 1/2 Narrow Plated	24

# 5.7 3-Line Hydraulic Breakdown



ITEM	DESCRIPTION	QTY
1	Grommet	1
2	Plate, Solenoid Cover	1
3	Bolt, 1/4 – 20 x 0.75 Plated	3
4	Fitting, Elbow 90 Degree 10 ORFS, 10 STOR	1
5	Fitting, Straight 12ORFS, 16SAE-ORB	1
6	Fitting, Elbow 90 Degree 12ORFS 16 STOR	1
7	Fitting, Straight 12 ORFS 12 STOR	4
8	Fitting, Elbow 90 Degree 6ORFS 6 ORB	2
9	Fitting, Straight 6ORFS 6ORB	6
10	Washer, 1/4 Narrow Plated	3
NS	Fitting, 45 Degree Elbow 6ORFS 6ORFS	2
NS	Assembly, Valve 3–Line 2 Function	1

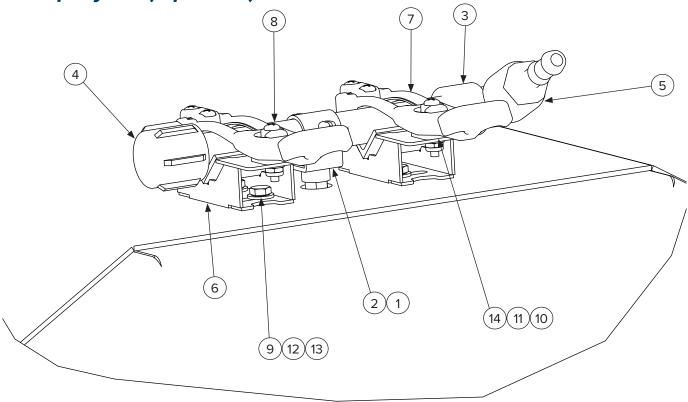
# 5.8 3-Line Valve Assembly Breakdown



ITEM	DESCRIPTION	QTY
1	Plug, 4 SAE–ORB Recessed Hex	3
2	Nut, Coil Size 8 & 10	2
3	Cartridge, Piloted Directional	1
4	Cartridge, Solenoid Valve	2
5	Cartridge, Check	1
6	Cartridge, Relief	1
7	Plug, Orifice (0.02 in.)	2
8	Cartridge, Check Valve	1
9	Plug, Orifice (0.052 in.)	1
10	Coil, Size -08 Type D	4
11	Spacer, Solenoid Size -8 Type D	2

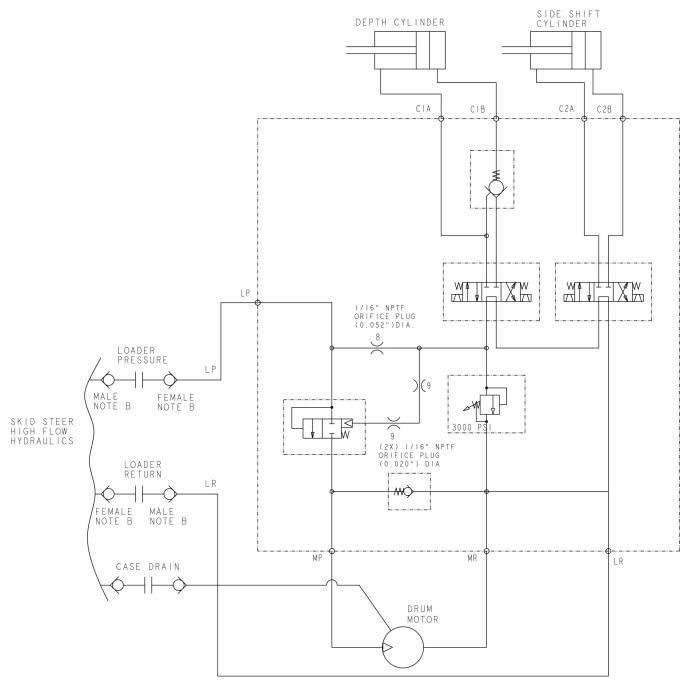
### 5. Parts

# 5.9 Spray Kit (Optional)



ITEM	DESCRIPTION	QTY
1	Nozzle, Water Kit	1
2	Saddle Assembly, Nozzle	1
3	Fitting, 1/2 Pipe – F Elbow	1
4	Fitting, 1/2 Pipe – F Cap	1
5	Fitting, Brass 1/2 Pipe Male – 1/2 Barb St.	1
6	Weldment, Spray Bar Mount	2
7	Latch Assembly, Rubber Draw	2
8	Tube, Spray Bar	1
9	Bolt, 1/4 – 20 x 1.00 Plated	4
10	Screw, Machine 10 – 24 x 1.25 Plated	6
11	Nut, Nylock No. 10–24	6
12	Nut, 1/4 – 20 Plated Nylock	4
13	Washer, 1/4 Narrow Plated	8
14	Washer, No. 10 Narrow Plated	6

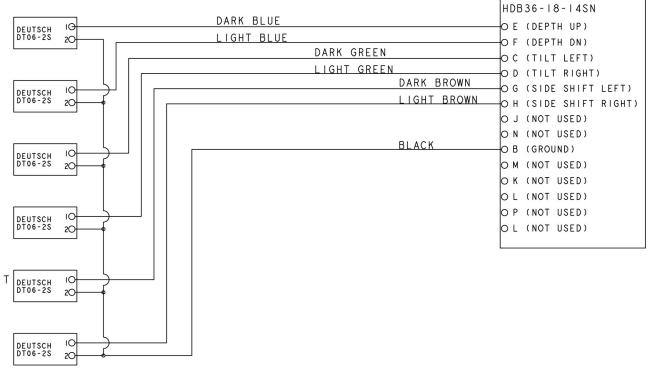
## 5.10 3-Line Hydraulic Schematic (All 3-Line Skid Steers)



NOTE: All loaders EXCEPT Bobcat; Bobcat is reversed.

#### 5.11 3-Line Electrical Schematic 160400

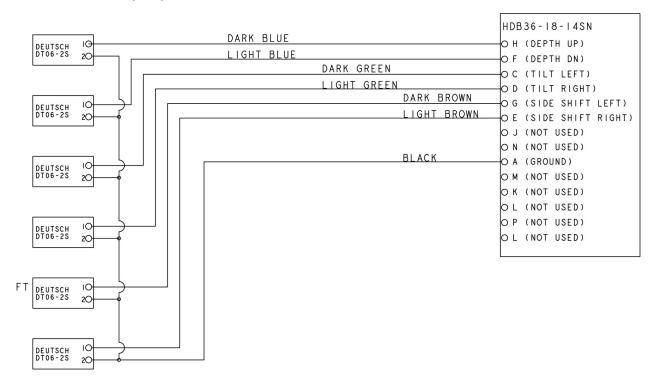
#### Bobcat\*, Case, Kubota, etc.



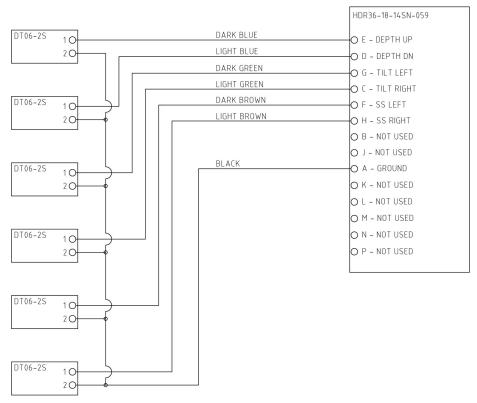
<sup>\*</sup>Requires 160416 adapter harness

# 5.12 3-Line Electrical Schematic 160430

### John Deere A, B, C Series

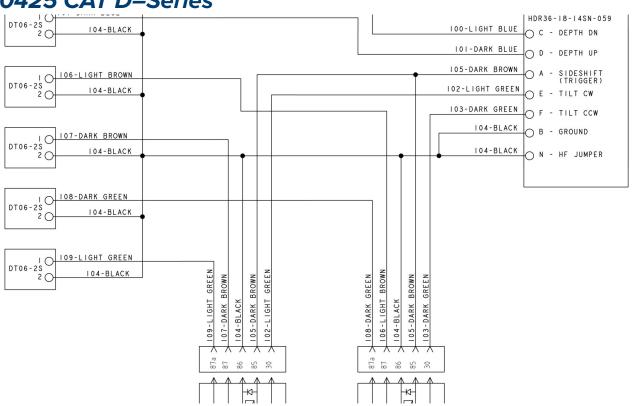


# 5.13 CP18, CP24, CP30, & CP40 3-Line Electrical Schematic 160435 John Deere D-Series



### 5.14 CP18, CP24, CP30 & CP40 3-Line Electrical Schematic

### 160425 CAT D-Series



# 6. Specifications

# **6.1 Attachment Specifications**

	10" RO	AD SAW	18" ROAD SAW				
DESCRIPTION	2.5" Cutting Wheel	4.5" Cutting Wheel	3" Cutting Wheel	4.5" Cutting Wheel	6" Cutting Wheel		
Cutting Width	2.5"	4.5"	3"	4.5"	6"		
Cutting Depth	0-	10"	0-18"				
Number of Teeth	26	34	30	30 48			
Minimum Hydraulic Flow	24 GPM						
Maximum Hydraulic Flow	42 GPM						
Minimum Pressure	2,000 PSI						
Maximum Pressure	5,000 PSI						
Sideshift Travel	26 inches						
Approximate Weight	1,320 lbs.	1,360 lbs.	1,916 lbs	1,970 lbs	2,031 lbs		

<sup>10&</sup>quot; Road Saw without Cutting Wheel: 920 lbs.

<sup>18&</sup>quot; Road Saw without Cutting Wheel: 1,520 lbs.

# 6. Specifications

# **6.2 Torque Specifications**

**Standard Hardware and Lock Nuts** 

		III LOCK NUI						
BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
Nominal Size	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	W/ Grade 5 Bolt	W/ Grade 8 Bolt
1/4	55 in / lb	72 in / lb	86 in / lb	112 in / lb	121 in / lb	157 in / lb	61 in / lb	86 in / lb
	(6.2 N•m)	(8.1 N•m)	(9.7 N•m)	(12.6 N•m)	(13.6 N•m)	(17.7 N•m)	(6.9 N•m)	(9.8 N•m)
5/16	115 in / lb	149 in / lb	178 in / lb	229 in / lb	250 in / lb	325 in / lb	125 in / lb	176 in / lb
	(13 N•m)	(17 N•m)	(20 N•m)	(26 N•m)	(28 N•m)	(37 N•m)	(14 N•m)	(20 N•m)
3/8	17 ft / lb	22 ft / lb	26 ft / lb	34 ft / lb	37 ft / lb	48 ft / lb	19 ft / lb	26 ft / lb
	(23 N•m)	(30 N•m)	(35 N•m)	(46 N•m)	(50 N•m)	(65 N•m)	(26 N•m)	(35 N•m)
7/16	27 ft / lb	35 ft / lb	42 ft / lb	54 ft / lb	59 ft / lb	77 ft / lb	30 ft / lb	42 ft / lb
	(37 N•m)	(47 N•m)	(57 N•m)	(73 N•m)	(80 N•m)	(104 N•m	(41 N•m)	(57 N•m)
1/2	42 ft / lb	54 ft / lb	64 ft / lb	83 ft / lb	91 ft / lb	117 ft / lb	45 ft / lb	64 ft / lb
	(57 N•m)	(73 N•m)	(87 N•m)	(113 N•m)	(123 N•m)	(159 N•m)	(61 N•m)	(88 N•m)
9/16	60 ft / lb	77 ft / lb	92 ft / lb	120 ft / lb	130 ft / lb	169 ft / lb	65 ft / lb	92 ft / lb
	(81 N•m)	(104 N•m)	(125 N•m)	(163 N•m)	(176 N•m)	(229 N•m)	(88 N•m)	(125 N•m)
5/8	83 ft / lb	107 ft / lb	128 ft / lb	165 ft / lb	180 ft / lb	233 ft / lb	90 ft / lb	127 ft / lb
	(112 N•m)	(145 N•m)	(174 N•m)	(224 N•m)	(244 N•m)	(316 N•m)	(122 N•m)	(172 N•m)
3/4	146 ft / lb	189 ft / lb	226 ft / lb	293 ft / lb	319 ft / lb	413 ft / lb	160 ft / lb	226 ft / lb
	(198 N•m)	(256 N•m)	(306 N•m)	(397 N•m)	(432 N•m)	(560 N•m)	(217 N•m)	(306 N•m)
7/8	142 ft / lb	183 ft / lb	365 ft / lb	473 ft / lb	515 ft / lb	667 ft / lb	258 ft / lb	364 ft / lb
	(193 N•m)	(248 N•m)	(495 N•m)	(641 N•m)	(698 N•m)	(904 N•m)	(350 N•m)	(494 N•m)
1	213 ft / lb	275 ft / lb	547 ft / lb	708 ft / lb	773 ft / lb	1000 ft / lb	386 ft / lb	545 ft / lb
	(289 N•m)	(373 N•m)	(742 N•m)	(960 N•m)	(1048 N•m)	(1356 N•m)	(523 N•m)	(739 N•m)

# 6. Specifications

# **6.2 Torque Specifications Cont'd**

**Standard Hardware and Lock Nuts** 

BOLT TYPE	CLASS 4.8		CLASS 8.8 OR 9.8		CLASS 10.9		CLASS 12.9	
Size	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry
MC	4.8 N•m	6 N•m	9 N•m	11 N•m	13 N•m	17 N•m	15 N•m	19 N•m
M6	3.5 in / lb	4.5 in / lb	6.5 in / lb	8.5 in / lb	9.5 in / lb	12 in / lb	11.5 in / lb	14.5 in / lb
140	12 N•m	15 N•m	22 N•m	28 N•m	32 N•m	40 N•m	37 N•m	47 N•m
M8	8.5 in / lb	11 in / lb	16 in / lb	20 in / lb	24 in / lb	30 in / lb	28 in / lb	35 in / lb
N440	23 N•m	29 N•m	43 N•m	55 N•m	63 N•m	80 N•m	75 N•m	95 N•m
M10	17 in / lb	21 in / lb	32 in / lb	40 in / lb	47 in / lb	60 in / lb	55 in / lb	70 in / lb
1440	40 N•m	50 N∙m	75 N•m	95 N•m	110 N•m	140 N•m	130 N•m	165 N•m
M12	29 in / lb	37 in / lb	55 in / lb	70 in / lb	80 in / lb	105 in / lb	95 in / lb	120 in / lb
D 44 4	63 N•m	80 N•m	120 N•m	150 N•m	175 N•m	225 N•m	205 N•m	260 N•m
M14	47 in / lb	60 in / lb	88 in / lb	110 in / lb	130 in / lb	165 in / lb	150 in / lb	190 in / lb
MAG	135 N•m	175 N•m	260 N•m	330 N•m	375 N•m	475 N•m	440 N•m	560 N•m
M16	100 in / lb	125 in / lb	195 in / lb	250 in / lb	275 in / lb	350 in / lb	325 in / lb	410 in / lb
N410	135 N•m	175 N•m	260 N•m	330 N•m	375 N•m	475 N•m	440 N•m	560 N•m
M18	100 in / lb	125 in / lb	195 in / lb	250 in / lb	275 in / lb	350 in / lb	325 in / lb	410 in / lb
M20	190 N•m	240 N•m	375 N•m	475 N•m	530 N•m	675 N•m	625 N•m	800 N•m
M20	140 in / lb	180 in / lb	275 in / lb	350 in / lb	400 in / lb	500 in / lb	460 in / lb	580 in / lb
1400	260 N•m	330 N•m	510 N•m	650 N•m	725 N•m	925 N•m	850 N•m	1075 N•m
M22	190 in / lb	250 in / lb	375 in / lb	475 in / lb	540 in / lb	675 in / lb	625 in / lb	800 in / lb
N42.4	330 N•m	425 N•m	650 N•m	825 N•m	925 N•m	1150 N•m	1075 N•m	1350 N•m
M24	250 in / lb	310 in / lb	475 in / lb	600 in / lb	675 in / lb	850 in / lb	800 in / lb	1000 in / lb
M27	490 N•m	625 N•m	950 N•m	1200 N•m	1350 N•m	1700 N•m	1600 N•m	2000 N•m
IVI Z /	360 in / lb	450 in / lb	700 in / lb	875 in / lb	1000 in / lb	1250 in / lb	1150 in / lb	1500 in / lb
M30	675 N•m	850 N•m	1300 N•m	1650 N•m	1850 N•m	2300 N•m	2150 N•m	2700 N•m
10130	490 in / lb	625 in / lb	950 in / lb	1200 in / lb	1350 in / lb	1700 in / lb	1600 in/lb	2000 in / lb
M33	900 N•m	1150 N•m	1750 N•m	2200 N•m	2500 N•m	3150 N•m	2900 N•m	3700 N•m
14133	675 in / lb	850 in / lb	1300 in / lb	1650 in / lb	1850 in / lb	2350 in / lb	2150 in / lb	2750 in/lb
M36	1150 N•m	1450 N•m	2250 N•m	2850 N•m	3200 N•m	4050 N•m	3750 N•m	4750 N•m
IVI36	850 in / lb	1075 in / lb	1650 in / lb	2100 in / lb	2350 in / lb	3000 in / lb	2750 in/lb	3500 in/lb



### Warranty

#### MANUFACTURER'S LIMITED WARRANTY

BLUE DIAMOND® ATTACHMENTS, a manufacturer of quality attachments, warrants new BLUE DIAMOND® ATTACHMENTS products and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by BLUE DIAMOND® ATTACHMENTS, LLC.

BLUE DIAMOND® ATTACHMENTS liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BLUE DIAMOND® ATTACHMENTS designated location or at an authorized dealer location, or replacing them, as BLUE DIAMOND® ATTACHMENTS shall elect. The above shall be in accordance with BLUE DIAMOND® ATTACHMENTS warranty adjustment policies. BLUE DIAMOND® ATTACHMENTS obligation shall terminate twelve (12) months for the Blue Diamond® Road Saw after the delivery of the goods to original purchaser.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the BLUE DIAMOND® ATTACHMENTS factory or authorized BLUE DIAMOND® ATTACHMENTS dealership or in any way so as in BLUE DIAMOND® ATTACHMENTS judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the company recommended machine rated capacity.

#### WARRANTY CLAIM

To submit a warranty claim, a claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

#### **EXCLUSIONS OF WARRANTY**

Except as otherwise expressly stated herein, BLUE DIAMOND® ATTACHMENTS makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND® ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND® ATTACHMENTS has any authority to bind BLUE DIAMOND® ATTACHMENTS to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty policy supersedes any previous documents. Please see bluediamondattachments.com/warranty-policies for the most up to date warranty information.

NOTE: Blue Diamond® Attachments is a trademark of BLUE DIAMOND® ATTACHMENTS



### QUALITY | DEPENDABILITY | INTEGRITY

Blue Diamond® Attachments 4512 Anderson Road, Knoxville, TN 37918 888-376-7027